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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,309	04/01/2004	James R. Lewis	BOC9-2004-0017 (479)	7259

40987 7590 11/15/2007

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EXAMINER	
ARMSTRONG, ANGELA A	
ART UNIT	**PAPER NUMBER**
2626	

MAIL DATE	DELIVERY MODE
11/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/815,309	LEWIS ET AL.	
	Examiner	Art Unit	
	Angela A. Armstrong	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 9/6/07.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1,3-8,10-15 and 17-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,3-8,10-15 and 17-19 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to the amendment filed on September 6, 2007, claims 2, 9, and 16 have been cancelled, claims 1, 3-4, 8, 10-12, 15, and 17-19 are amended, claims 1, 3-8, 10-15, and 17-19 are pending and have been examined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3-8, 10-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Thong et al (Us Patent 6,490,553) in view of Reynar (US Patent No. 6,446,041).

Claim 1. Van Thong teaches, a method of dynamically and automatically adjusting a speech output rate match an speech input rate, comprising the steps of:

receiving a speech input; **(Fig. 2 Speech input 17)**

computing a speech input rate from the speech input; and **(Fig.2 Recognizer & Speech rate calculation Unit 41; analyses the recorded speech data and calculates the average speech rate. This unit may operate in real time, or the averaged instantaneous rate values may be computed ahead of time during the preprocessing step. Col. 10, lines 50-55)**

dynamically adjusting the speech output rate to match the speech input rate. **(Fig. 2 Rate Adjusted Speech output 47; plays back recorded speech at a certain rate, this playback**

rate is able to match the input rate so that expressions sound the same coming in and exiting the system). Van Thong does not teach whether the speech input is from an audio recording or computer generated text-to speech and determining whether a type of speech output to be provided at the speech output rate is the text-to-speech or the recorded speech output. Reynar discloses a multi-source input and playback utility that accepts inputs from various sources, transcribes the inputs as text, and plays aloud user-selected portions of the text is disclosed. The user may select a portion of the text and request audio playback thereof. The utility examines each transcribed word in the selected text. If stored audio data is associated with a given word, that audio data is retrieved and played. If no audio data is associated, then a text-to-speech entry or series of entries is retrieved and played instead. The system also provides for the utility may also speed up, slow down, or otherwise alter the TTS entry prior to playback in order to match the stored audio data. The utility may analyze the audio data waveform, extracting such information as speech speed, pitch, tone, and timbre. The utility may then alter these characteristics in the TTS entry in order to more closely parallel the sound of the TTS entry to a speaker's own speech patterns. It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Van Thong to provide for text-to-speech audio and recorded audio, for the purpose of providing all necessary audio data of any desired words for use in the system.

Claim 3. The combination of Van Thong and Reynar teaches, the method of claim 1, wherein the method further comprises the step of adjusting a rate of text-to-speech synthesis to match the speech input rate if the type of speech output is text-to-speech. **(Fig.1; The next module, the speech control module 19, controls the rate of speech depending on how fast**

the text is spoken and/or how fast the operator 53 types. Col 3 lines 55-54; Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)

Claim 4. The combination of Van Thong and Reynar teaches, the method of claim 1, wherein the method further comprises the step of counting alternate text available from a recorded output and determining an audio file length to compute a default output rate **(Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)** which is used to adjust a recorded output rate **(Fig. 2 rate adjusted speech input 47)** to match the input speech rate when the type of speech is recorded **(Fig. 2 input speech 17)** and alternate text is available. **(The desired target speech rate 37 may be a "predefined value" or depend on external synchronization, here the keyboard input *i.e. text available* (i.e. real time transcribed text) 49. Col. 5 lines 1-3)**

Claim 5. The combination of Van Thong and Reynar teaches, the method of claim 4, wherein the method further comprises the step of obtaining an output word count from a transcription of a recorded speech output and determining an audio file length to compute a default output rate **(Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)** which is used to adjust a recorded output rate **(Fig. 2 rate adjusted speech input 47)** to match the input speech rate when the type of speech is recorded **(Fig. 2 input speech 17)** and alternate text is unavailable **(The desired target speech rate 37 may be a**

"predefined value" *i.e. text not available* or depend on external synchronization, here the keyboard input (i.e. real time transcribed text) 49. Col. 5 lines 1-3)

Claim 6. The combination of Van Thong and Reynar teaches, the method of claim 1, wherein the step of compute the speech input rate comprises the step of computing a running average of the rates computed for the last n utterances of the speech input. **(Fig.2 Recognizer & Speech rate calculation Unit 41, analyses the recorded speech data and calculates the average speech rate. This unit may operate in real time, or the averaged instantaneous rate values may be computed ahead of time during the preprocessing step. Col. 10, lines 50-55)**

Claim 7. The combination of Van Thong and Reynar teaches, the method of claim 1, wherein the method further comprises the step of feeding back an estimate of the speech input rate **(Fig. 2 Speech rate calculation Unit element 41)** to a speech production mechanism to adjust the speech output rate. **(Fig. 2 rate adjusted speech output)**

Claim 8. Van Thong teaches, a system for dynamically and automatically adjusting an speech output rate to match an speech input rate, comprises: a memory; **(Fig. 6 Laptop and memory storage devices)** and a processor programmed to receives a speech input; **(Fig. 2 Speech input 17)**

computes a speech input rate from the speech input; and **(Fig.2 Recognizer & Speech rate calculation Unit 41; analyses the recorded speech data and calculates the average speech rate. This unit may operate in real time, or the averaged instantaneous rate values may be computed ahead of time during the preprocessing step. Col. 10, lines 50-55)**

dynamically adjusts the speech output rate to match the speech input rate. **(Fig. 2 Rate Adjusted Speech output 47; plays back recorded speech at a certain rate, this playback rate**

is able to match the input rate so that expressions sound the same coming in and exiting the system). Van Thong does not teach whether the speech input is from an audio recording or computer generated text-to speech and determining whether a type of speech output to be provided at the speech output rate is the text-to-speech or the recorded speech output. Reynar discloses a multi-source input and playback utility that accepts inputs from various sources, transcribes the inputs as text, and plays aloud user-selected portions of the text is disclosed. The user may select a portion of the text and request audio playback thereof. The utility examines each transcribed word in the selected text. If stored audio data is associated with a given word, that audio data is retrieved and played. If no audio data is associated, then a text-to-speech entry or series of entries is retrieved and played instead. The system also provides for the utility may also speed up, slow down, or otherwise alter the TTS entry prior to playback in order to match the stored audio data. The utility may analyze the audio data waveform, extracting such information as speech speed, pitch, tone, and timbre. The utility may then alter these characteristics in the TTS entry in order to more closely parallel the sound of the TTS entry to a speaker's own speech patterns. It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Van Thong to provide for text-to-speech audio and recorded audio, for the purpose of providing all necessary audio data of any desired words for use in the system.

Claim 10. The combination of Van Thong and Reynar teaches, the system of claim 8, wherein the processor is further programmed to adjust a rate of text-to-speech synthesis to match the speech input rate if the type of speech output is text-to-speech. **(Fig.1; The next module, the speech control module 19, controls the rate of speech depending on how fast the text is**

spoken and/or how fast the operator 53 types. Col 3 lines 55-54; Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)

Claim 11. The combination of Van Thong and Reynar teaches, the system of claim 8, wherein the processor is further programmed to count alternate text available from a recorded output and determine an audio file length to compute a default output rate **(Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)** which is used to adjust a recorded output rate **(Fig. 2 rate adjusted speech input 47)** to match the input speech rate when the type of speech is recorded **(Fig. 2 input speech 17)** and alternate text is available. **(The desired target speech rate 37 may be a "predefined value" or depend on external synchronization, here the keyboard input *i.e. text available* (i.e. real time transcribed text) 49. Col. 5 lines 1-3)**

Claim 12. The combination of Van Thong and Reynar teaches, the system of claim 8, wherein the processor is further programmed to obtain an output word count from a transcription of a recorded Speech output and determine an audio file length to compute a default output rate **(Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)** which is used to adjust a recorded output rate **(Fig. 2 rate adjusted speech input 47)** to match the input speech rate when the type of speech is recorded **(Fig. 2 input speech 17)** and alternate text is unavailable **(The desired target speech rate 37 may be a "predefined value"**

i.e. text not available **or depend on external synchronization, here the keyboard input (i.e. real time transcribed text) 49. Col. 5 lines 1-3)**

Claim 13. The combination of Van Thong and Reynar teaches, the system of claim 8, wherein the processor is further programmed to compute a running average of the rates computed for the last n utterances of the speech input when computing the speech input rate. **(Fig.2 Recognizer & Speech rate calculation Unit 41, analyses the recorded speech data and calculates the average speech rate. This unit may operate in real time, or the averaged instantaneous rate values may be computed ahead of time during the preprocessing step. Col. 10, lines 50-55)**

Claim 14. The combination of Van Thong and Reynar teaches, the system of claim 8, wherein the processor is further programmed to feed back an estimate of the speech input rate **(Fig. 2 Speech rate calculation Unit element 41)** to a speech production mechanism to adjust the speech output rate. **(Fig. 2 rate adjusted speech output)**

Claim 15. Van Thong teaches, a machine-readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform**(Fig. 6 Laptop and memory storage devices)** the steps of receiving a speech input; **(Fig. 2 Speech input 17)**

computing a speech input rate from the speech input; and **(Fig.2 Recognizer & Speech rate calculation Unit 41; analyses the recorded speech data and calculates the average speech rate. This unit may operate in real time, or the averaged instantaneous rate values may be computed ahead of time during the preprocessing step. Col. 10, lines 50-55)**

dynamically adjusting the speech output rate to match the speech input rate. **(Fig. 2 Rate Adjusted Speech output 47; plays back recorded speech at a certain rate, this playback rate is able to match the input rate so that expressions sound the same coming in and exiting the system).** Van Thong does not teach whether the speech input is from an audio recording or computer generated text-to speech and determining whether a type of speech output to be provided at the speech output rate is the text-to-speech or the recorded speech output. Reynar discloses a multi-source input and playback utility that accepts inputs from various sources, transcribes the inputs as text, and plays aloud user-selected portions of the text is disclosed. The user may select a portion of the text and request audio playback thereof. The utility examines each transcribed word in the selected text. If stored audio data is associated with a given word, that audio data is retrieved and played. If no audio data is associated, then a text-to-speech entry or series of entries is retrieved and played instead. The system also provides for the utility may also speed up, slow down, or otherwise alter the TTS entry prior to playback in order to match the stored audio data. The utility may analyze the audio data waveform, extracting such information as speech speed, pitch, tone, and timbre. The utility may then alter these characteristics in the TTS entry in order to more closely parallel the sound of the TTS entry to a speaker's own speech patterns. It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Van Thong to provide for text-to-speech audio and recorded audio, for the purpose of providing all necessary audio data of any desired words for use in the system.

Claim 17. The combination of Van Thong and Reynar teaches, the machine-readable storage of claim 15, wherein the machine-readable storage is further programmed to adjust a rate

of text-to-speech synthesis to match the speech input rate if the type of speech output is text-to-speech. **(Fig.1; The next module, the speech control module 19, controls the rate of speech depending on how fast the text is spoken and/or how fast the operator 53 types. Col 3 lines 55-54; Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)**

Claim 18. The combination of Van Thong and Reynar teaches, the machine-readable storage of claim 15, wherein the machine-readable storage is further programmed to count alternate text available from a recorded output and of determine an audio file length to compute a default output rate **(Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)** which is used to adjust a recorded output rate **(Fig. 2 rate adjusted speech input 47)** to match the input speech rate when the type of speech is recorded **(Fig. 2 input speech 17)** and alternate text is available. **(The desired target speech rate 37 may be a "predefined value" or depend on external synchronization, here the keyboard input *i.e. text available* (i.e. real time transcribed text) 49. Col. 5 lines 1-3)**

Claim 19. The combination of Van Thong and Reynar teaches, the machine-readable storage of claim 15, wherein the machine-readable storage is further programmed to obtain an output word count from a transcription of a recorded speech output and determine an audio file length to compute a default output rate **(Alternatively, the speech playback rate may depend on the external synchronization source such as the text-input of an operator transcribing the recorded speech. Col 12 lines 21 –23)** which is used to adjust a recorded output rate **(Fig. 2**

rate adjusted speech input 47) to match the input speech rate when the type of speech is recorded **(Fig. 2 input speech 17)** and alternate text is unavailable **(The desired target speech rate 37 may be a "predefined value" *i.e. text not available* or depend on external synchronization, here the keyboard input (i.e. real time transcribed text) 49. Col. 5 lines 1-3)**

Response to Arguments

3. Applicant's arguments with respect to claims 1, 3-9, 10-15, and 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Angela Armstrong

Angela A Armstrong
Primary Examiner
Art Unit 2626

AAA
November 13, 2007